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Engineering Statement
On Behalf of Nebraska Educational Telecommunications Commission
August 10, 2005

We have been asked by Nebraska Educational Telecommunications Commission (NET) to prepare the showings herein:

During the DTV channel election process, NET requested to use channel 12 for KRNE-DT, Merriman. This is the channel used by analog KRNE-TV. While the Commission assigned channel 17 to KRNE-DT, NET finds that, due to the better propagation characteristics of channel 12 and the lower operating power required, it would be more economical, in the long term, to operate channel 12 than channel 17. For the same reasons, NET also requested to use the current KTNE-TV analog channel 13 for KTNE-DT, Alliance, Nebraska, rather than the assigned channel 24. On June 7, 2005, NET received a letter from the FCC stating that its KTNE-DT proposal would cause 0.2% interference to the elected channel of KRNE-DT. This interference is independently confirmed by the attached OET 69 analysis, performed using the same computer program used by the Commission and authored by William Meintell. (See attachment A[1])

The OET 69 DTV interference calculation procedure was used to create the map included as attachment B. This map defines the location of interference caused to KRNE-DT by KTNE-DT. Based on the FCC program there are 62 persons within the interference area. The map also shows that the entire area of interference is also served by a much higher signal from KTNE-DT.[2] Since KTNE-DT is an NET station and it offers the same programming as KRNE-DT, there will be no actual loss of service. KTNE-DT is located outside, but near, the Cheyene/Scottsbluff DMA (#195) while KRNE is in the Sioux Falls DMA (#112). However, the interference area falls outside both DMAs. (See map)

[1] This study has been edited to show only the relevant analysis for KTNE-DT interference to KRNE-DT.
[2] KTNE-DT provides a 56 dBu F(50-90) or better over the entire area where it causes interference to KRNE-DT.

Based on an OET-69 analysis using V-Soft Communication's Probe 3 software, we find that KRNE-DT, operating on channel 12, receives a total of 3.46 percent of unique interference from the following stations:

	Total Interference		Unique Interference	
Call Letters	Population	%	Population	%
KSNK-D.C (12)	0	0.000	0	0.000
KTNE-DT (13)	31	0.115	31[3]	0.115
KTTM (12+)	903	3.343	903	3.343
KSNK-D (12)	0	0.000	0	0.000

KRNE-DT enjoys interference free coverage over its entire city of license, Merriman, Nebraska. KTNE-DT is not caused interference by KRNE-DT.

Since the area of interference is well served by KTNE-DT and no person will lose NET programming service and since KRNE-DT will receive total interference of only 3.343 percent and that Commission approval will result in NET having more energy efficient and economical stations, we strongly believe an approval of NET's request is in the public interest.

Attachment C is a certification of the qualifications of the preparer.

Doug Vernier

[3] This figure comes from the Probe 3 study. While it is different from the FCC study of 62 people, with the small numbers involved, such a difference between program is not unexpected.

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 08-11-2005 Time: 12:52:30

Record Selected for Analysis

KTNE-DT USERRECORD-01 ALLIANCE NE US
Channel 13 ERP 20.9 kW HAAT 466. m RCAMSL 01733 m
Latitude 041-50-24 Longitude 0103-03-18
Status APP Zone 2 Border
Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth 0.
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	36.0 dBu F(50,90) (km)
0.0	20.900	435.5	108.7
45.0	20.900	462.7	110.9
90.0	20.900	470.9	111.5
135.0	20.900	419.0	107.3
180.0	20.900	515.4	114.0
225.0	20.900	530.7	114.8
270.0	20.900	473.0	111.6
315.0	20.900	423.3	107.7

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

KTNE-DT 13 ALLIANCE NE USERRECORD01

and station

SHORT TO: KTNE-TV 13 ALLIANCE NE BLET 19781103KU
041-50-24 0103-03-18
Req. separation 273.6 Actual separation 0.0 Short 273.6 km

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountian

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

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Start of Interference Analysis

Proposed Station

Channel	Call	City/State	ARN
13	KTNE-DT	ALLIANCE NE	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
13	KRDO-TV	COLORADO SPRINGS CO	376.4	LIC	BLCT	- 19801015KF
13	KHGI-TV	KEARNEY NE	373.7	LIC	BMLCT	- 20020107ABG
13	KPSD-TV	EAGLE BUTTE SD	363.1	LIC	BLET	-366
13	KPLO-DR	RELIANCE SD	367.1	LIC	BPRM	- 20020219ABH
13	KPLO-TV	RELIANCE SD	367.1	LIC	BLCDT	- 20030519AER
13	KCWY	CASPER WY	289.3	CP MOD	BMPCT	- 20040924AGE
13	KCWY	CASPER WY	289.5	LIC	BLCT	- 20010302ABS
12	KRNE-DT	MERRIMAN NE	144.6	APP	USERRECORD	-02

%%%

Analysis of Interference to Affected Station 8

Analysis of current record

Channel	Call	City/State	Application Ref. No.
12	KRNE-DT	MERRIMAN NE	USERRECORD-02

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
12	KSNK-DT	MCCOOK NE	327.5	PLN	DTVPLN	- DTVP0103
12	KTTM	HURON SD	321.5	LIC	BLCT	-

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19940523KE
 13   KPLO-DR  RELIANCE SD              222.6  LIC    BPRM      -
20020219ABH
 13   KPLO-TV  RELIANCE SD              222.6  LIC    BLCDT     -
20030519AER
 13   KTNE-DT  ALLIANCE NE              144.6  APP    USERRECORD-01

 Total scenarios =   1


Result key:        9
Scenario        1  Affected station        8
Before Analysis

Results for: 12A NE MERRIMAN            USERRECORD02           APP
   HAAT  322.0 m, ATV ERP   15.7 kW
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour       33456      29931.8
   not affected by terrain losses     27924      27150.6
   lost to NTSC IX                     2160        549.0
   lost to additional IX by ATV           6         68.1
   lost to ATV IX only                    6         72.1
   lost to all IX                      2166        617.2

 Potential Interfering Stations Included in above Scenario     1

12N SD HURON               BLCT      19940523KE   LIC
12A NE MCCOOK              DTVPLN    DTVP0103     PLN

After Analysis

Results for: 12A NE MERRIMAN            USERRECORD02           APP
   HAAT  322.0 m, ATV ERP   15.7 kW
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour       33456      29931.8
   not affected by terrain losses     27924      27150.6
   lost to NTSC IX                     2160        549.0
   lost to additional IX by ATV          68        420.8
   lost to ATV IX only                   68        424.8
   lost to all IX                      2228        969.8

 Potential Interfering Stations Included in above Scenario     1

12N SD HURON               BLCT      19940523KE   LIC
12A NE MCCOOK              DTVPLN    DTVP0103     PLN
13A NE ALLIANCE            USERRECORD01           APP
 *Percent Service lost without proposal:      0.0  to USERRECORD02
 *Percent Service lost with proposal:         0.2  to USERRECORD02


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To save space, the rest of the study has been removed since it is not
relavent to KRNE-DT interference.

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Attachment B

OET-69 Interference Analysis

36 dBu F(50-90) Contours shown - Solid
43 dBu F(50-90) City Service Contours - Dashed

KTNE-DT
Latitude: 41-50-24 N
Longitude: 103-03-18 W
ERP: 20.90 kW
Channel: 13
Frequency: 213.0 MHz
AMSL Height: 1733.0 m
Elevation: 1292.15 m
Horiz. Pattern: Omni
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

KRNE-DT
Latitude: 42-40-38 N
Longitude: 101-42-36 W
ERP: 15.70 kW
Channel: 12
Frequency: 207.0 MHz
AMSL Height: 1377.0 m
Elevation: 1070.08 m
Horiz. Pattern: Omni
Vert. Pattern: Yes
Elec Tilt: 0.0

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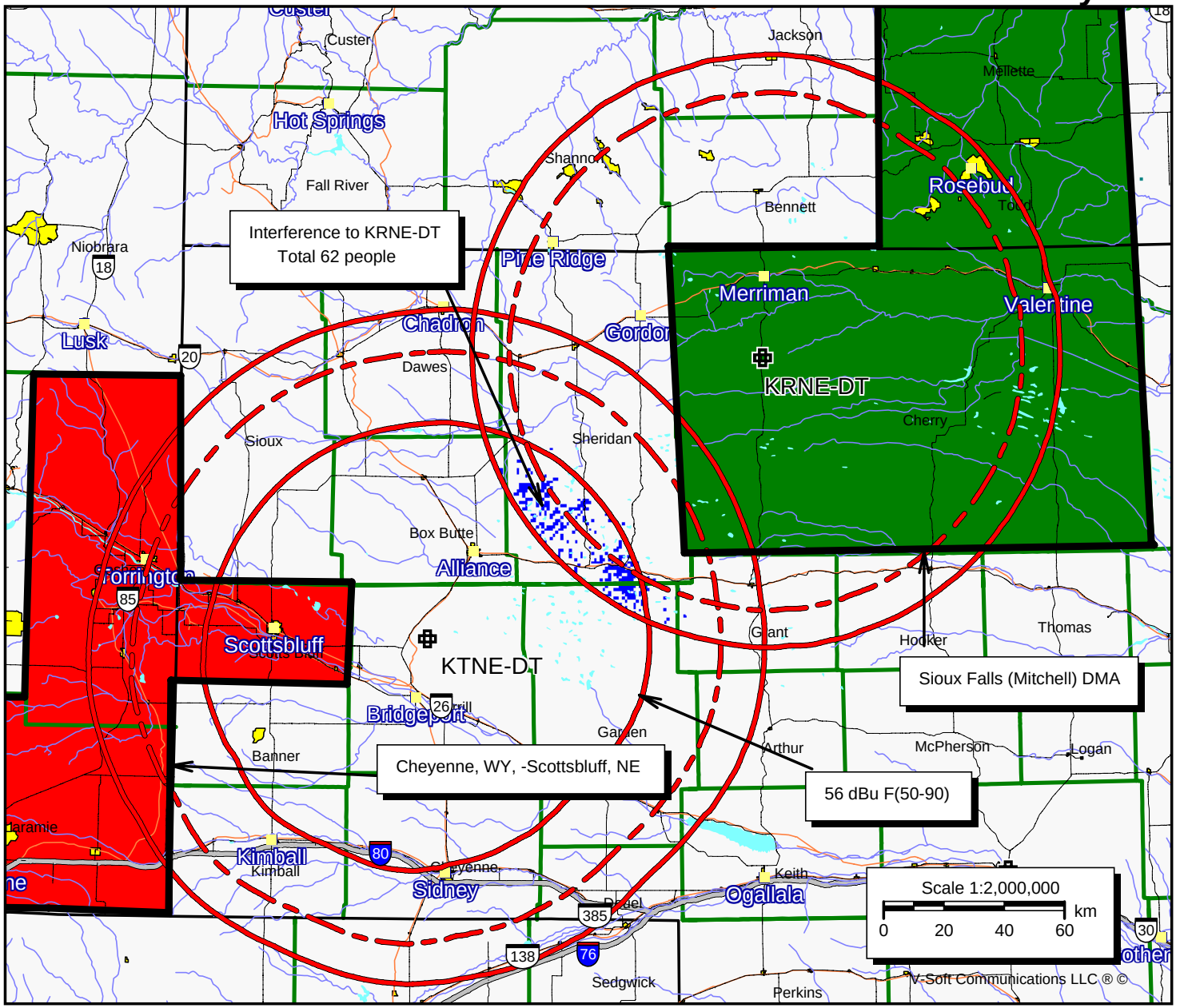

Attachment C

Declaration:

I, Douglas L. Vernier, declare that I have received training as an engineer from the University of Michigan School of Engineering. That, I have received degrees from the University in the field of Broadcast Telecommunications. That, I have been active in broadcast consulting for over 30 years;

That, I have held a Federal Communications Commission First Class Radiotelephone License continually since 1964. In 1985, this license was reissued by the Commission as a lifetime General Radiotelephone license no. PG-16-16464;

That, I am certified as a Professional Broadcast Engineer (#50258) by the Society of Broadcast Engineers, Indianapolis, Indiana. (Re-certified 10/2000.)

That, my qualifications are a matter of record with the Federal Communications Commission;

That, I have been retained by the Nebraska Educational Telecommunications Commission to prepare the engineering showings appended hereto:

That, I have prepared these broadcast engineering showings, the technical information contained in same and the facts stated within are true of my knowledge;

That, under penalty of perjury, I declare that the foregoing is correct.

_____ Douglas L. Vernier

Executed on Aug 10, 2005